AMENDMENTS

Please amend the application as indicated hereafter.

In the Claims

Please substitute the following clean copy text for the pending claims of the same number.

1.　(Twice Amended)　A method for transporting Internet Protocol data over a subscriber television system including a headend, a transmission network, and a plurality of Home Communication Terminals, with at least one Home Communications Terminal authorized for receiving the Internet Protocol data, comprising the steps of:

establishing a subnet connection for transporting the Internet Protocol data from a server in the headend to an external network, wherein the external network is different from the transmission network;

receiving at the headend a request for an Internet Protocol connection from the authorized Home Communications Terminal;

assigning at the headend an Internet Protocol address to the authorized Home Communications Terminal for the duration of the Internet Protocol connection;

establishing a route for the Internet Protocol data from the authorized Home Communications Terminal to the server and from the server to the authorized Home Communications Terminal over the transmission network, wherein at least a portion of the route for the Internet Protocol data is

adapted to carry a plurality of IP datagrams destined for a plurality of non-multicast IP addresses;

transmitting from the headend to the authorized Home Communications Terminal information regarding the route for the Internet Protocol connection;

communicating between the authorized Home Communications Terminal and the external network via the route and the subnet connection; and

releasing the route and assigned Internet Protocol address upon termination of the Internet Protocol connection.

9.   (Twice Amended) A method for transporting Internet Protocol data over a subscriber television system including a headend, a transmission network, and a plurality of Home Communications Terminals, with a least one Home Communications Terminal authorized for receiving the Internet Protocol data, comprising the steps of:

establishing a subnet connection for transporting the Internet Protocol data from a server in the headend to an external network, wherein the external network is different from the transmission network;

receiving at the headend a request for an Internet Protocol connection from the authorized Home Communications Terminal, including a Media Access Control (MAC) address associated with the authorized Home Communications Terminal;

assigning at the headend an Internet Protocol address to the authorized Home Communications Terminal for the duration of the Internet Protocol connection;

maintaining in a database in the headend, a relationship between the assigned Internet Protocol address and the Media Access Control (MAC) address associated with the authorized Home Communications Terminal, the relationship being maintained for at least the duration of the Internet Protocol connection;

establishing a downstream route for the Internet Protocol data from the server to the authorized Home Communications Terminal over the transmission network within a downstream bandwidth, wherein the downstream bandwidth includes at least a portion of a television program, wherein the downstream

route for the Internet Protocol data is adapted to carry a plurality of IP datagrams destined for a plurality of non-multicast IP addresses;

establishing an upstream route for the Internet Protocol data from the authorized Home Communications Terminal to the server over the transmission network within an upstream bandwidth, wherein the upstream route uses a protocol selected from Time Division Multiple Access, Slotted-Aloha, and request data slot allocation;

transmitting from the headend to the authorized Home Communications Terminal information regarding the downstream route and the upstream route for the Internet Protocol connection;

communicating the Internet Protocol data between the authorized Home Communications Terminal and the server via the downstream route and the upstream route, wherein the Internet Protocol data is encapsulated into packets;

communicating the Internet Protocol data between the server and the external network via the subnet connection; and

releasing the assigned Internet Protocol address, the downstream route and the upstream route upon termination of the Internet Protocol connection.

10.   (Once Amended)   A method of creating and removing Internet Protocol data communication paths within a television system, comprising the steps of:

establishing a subnet connection between the television system and an external network;

establishing a continuous feed session within the television system for the transportation of the Internet Protocol data;

receiving a request for an Internet Protocol connection;

assigning an Internet Protocol address for the duration of the Internet Protocol connection to the requester of the Internet Protocol connection;

designating a route including at least a portion of the continuous feed session for the Internet Protocol data for the duration of the Internet Protocol connection, wherein the route for the Internet Protocol data is adapted to carry a plurality of IP datagrams destined for a plurality of non-multicast IP addresses;

communicating the Internet Protocol data over the established subnet and designated route for the duration of the Internet Protocol connection; and

releasing the Internet Protocol address assignment and the route designation within the television system upon termination of the Internet Protocol connection.

12.   (Once Amended)   An application server for establishing, using, and deleting an Internet

Protocol data communications route within a television system between the application

server and an authorized Home Communications Terminal and between the application

server and an external network, the application server comprising:

means for establishing an external communications route between an

external network and the application server located in a headend of

the television system, for communicating Internet Protocol data

between the application server and the external network using an

Internet Protocol address from the application server, and for

releasing the external communications route;

a processor for requesting the establishment of an internal communications

route between the authorized Home Communications Terminal

requesting an Internet Protocol connection and the application server

for the duration of the Internet Protocol connection, for releasing the

internal communications route upon termination of the Internet

Protocol connection, and for communicating Internet Protocol data

between the authorized Home Communications Terminal and the

application server over the internal communications route, wherein

the Internet Protocol address for communicating with the external

network is associated with the authorized Home Communications

Terminal for the duration of the Internet Protocol connection and is

released upon termination of the Internet Protocol connection,

wherein at least a portion of the internal communications route is

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adapted to carry a plurality of IP datagrams destined for a plurality of

non-multicast IP addresses; and

means for encapsulating and unencapsulating the Internet Protocol data for

communication between the authorized Home Communications

Terminal and the application server.

18.   (Twice Amended) An application server for establishing and using an Internet Protocol

data communications route within a television system between the application server and

an authorized Home Communications Terminal and between the application server and

an external network, the application server comprising:

    means for establishing a subnet connection to the external network;

    means for receiving a request for an Internet Protocol connection from an

        authorized Home Communications Terminal;

    means for requesting establishment of an internal communications route for

        Internet Protocol data within the television system between the

        applications server and the authorized Home Communications Terminal,

        wherein the internal communications route requested is based on the type

        of Internet Protocol data connection required by the authorized Home

        Communications Terminal, wherein at least a portion of the internal

        communications route is adapted to carry a plurality of IP datagrams

        destined for a plurality of non-multicast IP addresses;

    means for assigning an Internet Protocol address to the authorized Home

        Communications Terminal for the duration of the Internet Protocol

        connection;

    a memory for maintaining a database of all Internet Protocol addresses associated

        with the application server and for maintaining the relationship of the

        authorized Home Communications Terminal and the assigned Internet

        Protocol address associated with the authorized Home Communications

        Terminal at least for the duration of an Internet Protocol connection;

means for encapsulating the Internet Protocol data received from the external

network for communication to the authorized Home Communications

Terminal and unencapsulating the Internet Protocol data received from the

authorized Home Communications Terminal for communication to the

external network; and

means for releasing the internal communications route for Internet Protocol data

upon termination of the Internet Protocol connection.

21. (Twice Amended) A subscriber television system for communicating Internet Protocol data with an external network, the system comprising:

a Home Communications Terminal capable of encapsulating and unencapsulating the Internet Protocol data;

a headend, wherein the headend includes:

an interface to an external network for establishing a subnet connection to the external network and for communicating the Internet Protocol data with the external connection, the subnet connection identifying at least one Internet Protocol address that will be used between the external network and the headend,

means for establishing, maintaining, communicating over, and releasing a communications route from the applications server to the Home Communications Terminal within the subscriber television system, wherein at least a portion of the communications route is adapted to carry a plurality of IP datagrams destined for a plurality of non-multicast IP addresses,

means for encapsulating and unencapsulating the Internet Protocol data for communication with the Home Communications Terminal; and

a transmission network for connecting the Home Communications Terminal to the headend.